

Work Order ID 76351

76351

Page 1

November-09-11 10:53:45 AM

Item ID: D412-664-203

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Crosstube Aft

Start Date: 09/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 29/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.L.J

Date: 11/11/09

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D412-664-243

E/DEO

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D412-664-203 CHG 008

→ 11 12 06 ⑦
MLJ 11-12-6
①

110

0.00

110

Packaging

Packaging

Memo

0.00

Packaging

MO
TW

11-11-21

120

0.00

120

BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D412-664-243 using CNC bender program 412-aft and Folio FT010

MO
TW

11-11-21

D412 664 203 B 76351

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: 12-664-203 PAR #: Fault Category: Khulsel NCR: Yes ☐ No ☒ DQA: Date: 11/12/08
 Resolution: use A.D. es Disposition: use A.D. es QA: N/C Closed: Date: 11/12/08

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11.11.23	12D	CRUSHING IS OVER 6% process	CP 11.11.23 PS/042	Acceptable based on comparison with center of tube. See attached SRA D.S. Remail	u/AS	S u/11/23	P 11.11.23 PS/042	S u/11/23

NOTE: Date & initial all entries

Work Order ID 76351

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November-09-11 10:53:45 AM

Item ID: D412-664-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Crosstube Aft
 Start Date: 09/11/2011 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 29/11/2011 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC15- Crosstube Dimensional Check Memo	0.00 0.00	Sub 23			(TV)			
140 *140* Crosstubes Crosstubes	Crosstubes Memo 1-Drill pilot holes in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551 and drill table DT8577 using #9 holes as per QSI 10 to install towers. 2-Ream hole to finish size in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes. 3-SCRIBE PART # & BATCH # 4-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243	0.00 0.00	} 85 11-11-24 TW 11-11-24						

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 09/11/2011 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 29/11/2011 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150 Crosstubes Chemical Conversion

0.00

150

0.00

HandFXtube

Memo

Hand Finishing Crosstubes

160 QC3- Inspect Part Finish

0.00

160

0.00

QC

Memo

Quality Control

170 QC5- Inspect part completeness to step on W/O

0.00

170

0.00

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Inspect for damage & ensure results are as per Dwg D412-664-203

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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210

0.00

210

SprayPaint

SprayPaint

Memo

0.00

Spray Painting

Mask underside of crosstube as shown

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per DEO D412-664-243 and QSI 005 4.2

PRIME:

Start Time: 11:00

Finish Time: 12:00

PAINT:

Start Time: 4:00

Finish Time: 5:00

25 11-11-20

220

QC14- Inspect Spray Paint

0.00

220

QC

Memo

0.00

Quality Control

Then, Wrap in plastic bag to protect from scratches

11 12-01 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Quality Control

m/ 11 12 05 (1)

12.11.06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 76351

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Item ID: D412-664-203 Accept ***N900040100*** Setup Start ***NS1***
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 Start Date: 09/11/2011 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 29/11/2011 Req'd Qty: 1.00 ***1*** Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Pick Kit	0.00							
250									
Packaging	Memo	0.00							<i>Puff/6 ①</i>
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
260									
QC	Memo	0.00							<i>5-11-10</i>
Quality Control									
270		0.00							
270									
Packaging	Packaging	0.00							<i>SP11-12-06</i>
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-664-203								
	*****Ensure tube is not packaged if curing time is less than 12 hrs, see step 27								
	for application time & date *****								
	Time & date of packaging: <i>Rev J.</i>								
	Location: <i>103</i>								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 76351***76351***

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November-09-11 10:53:45 AM

Item ID: D412-664-203

Accept

N900040100Setup . Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Crosstube Aft

Start Date: 09/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 29/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

11/12/11
ME 11-12-06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

November-09-11 10:53:50 AM

Page 1

Work Order ID: 76351

76351

Parent Item: D412-664-203

D412-664-203

Parent Item Name: Crosstube Aft

Start Date: 09/11/2011

Required Date: 29/11/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:E04.02.16Reformat; Added D3189-1K/DS
 IPP Rev:F 06-03-29 Remove Coments on Pick List JLM
 IPP Rev:G 06.12.08 per ECN 886 EC
 IPP Rev:H 07-04-30 As per Rev D JLM
 IPP Rev:I 08-06-12 add comment in seq. 21 DD verified by:EC IPP rev J
 11.04.21 DEO D412-664-243-E-1 EC verified DD IPP REV:K
 11.10.03 DEO D412-664-243-E-2 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D412-664-203TRN		Manufactured	No			110	Each	2.0000	1	1			
D412-664-203TRN									**				
Crosstube Turning Detail													

B76344

JW 11-11-21

Location Loc Qty Loc Code

FG 1

76106 1

LG 1

75784 1

D2896-1
D2896-1
 Support

Manufactured No

230 Each 37.0000 1

**

11-12-05

Location Loc Qty Loc Code

LG 16

71502 16

LG052 21

74465 21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November-09-11 10:53:50 AM

Work Order ID: 76351

76351

Parent Item: D412-664-203

D412-664-203

Parent Item Name: Crosstube Aft

Start Date: 09/11/2011

Required Date: 29/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3189-1 Manufactured No

230 Each 28.0000 2 2

D3189-1

Chafing Shield

**

m 11.12.05

Location Loc Qty Loc Code

FG 4

36065 4

LG053 24

73534 24

D3595-063-570 Manufactured No

230 Each 69.0000 2 2

D3595-063-570

RUBBER CUSHION

**

m 11.12.05

Location Loc Qty Loc Code

FG 8

37971 1

42243 7

LG 61

71534 61

MS21920-28 Purchased No

230 Each 88.0000 4 4

MS21920-28

Clamp(per MIL-DTL-8783C)

**

m 11.12.05

Location Loc Qty Loc Code

FG 5

105884 5

LG050 83

116839 2

118713 4

119285 77

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Picklist Print

November-09-11 10:53:50 AM

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Work Order ID: 76351

76351

Parent Item: D412-664-203

D412-664-203

Parent Item Name: Crosstube Aft

Start Date: 09/11/2011

Required Date: 29/11/2011

Start Qty: 1.00

Required Qty: 1.00

MS21920-30

Purchased

No

230

Each

110.0000

2

2

MS21920-30

clamp(per MIL-DTL-8783C)

**

11.12.05

Location

Loc Qty

Loc Code

LG

50

119529

50

LG050

46

117998

46

LG051

14

111258

14

AN6-40A

Purchased

No

250

Each

77.0000

4

4

AN6-40A

Bolt

**

11.12.05

Location

Loc Qty

Loc Code

ST342

77

117688

1

118422

26

119449

50

AN6-41A

Purchased

No

250

Each

41.0000

2

2

AN6-41A

Bolt

**

119449

119641

11.12.05

Location

Loc Qty

Loc Code

ST142

16

118451

16

ST342

25

119449

25

AN960JD616

NAS1149D0663J Purchased

No

250

Each

0.0000

18

18

AN960JD616

Washer

**

119075

11.12.05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Pieklis Print

November-09-11 10:53:50 AM

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Work Order ID: 76351

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Parent Item: D412-664-203

D412-664-203

Parent Item Name: Crosstube Aft

Start Date: 09/11/2011

Required Date: 29/11/2011

Start Qty: 1.00

Required Qty: 1.00

MS21042L6

Purchased

No

250

Each

1,592.000

6

6

MS21042I 6

Nut

**



Location

Loc Qty

Loc Code

ST300

592

117677

25

118384

5

118927

48

118968

514

ST518

1000

119075

1000

110968

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

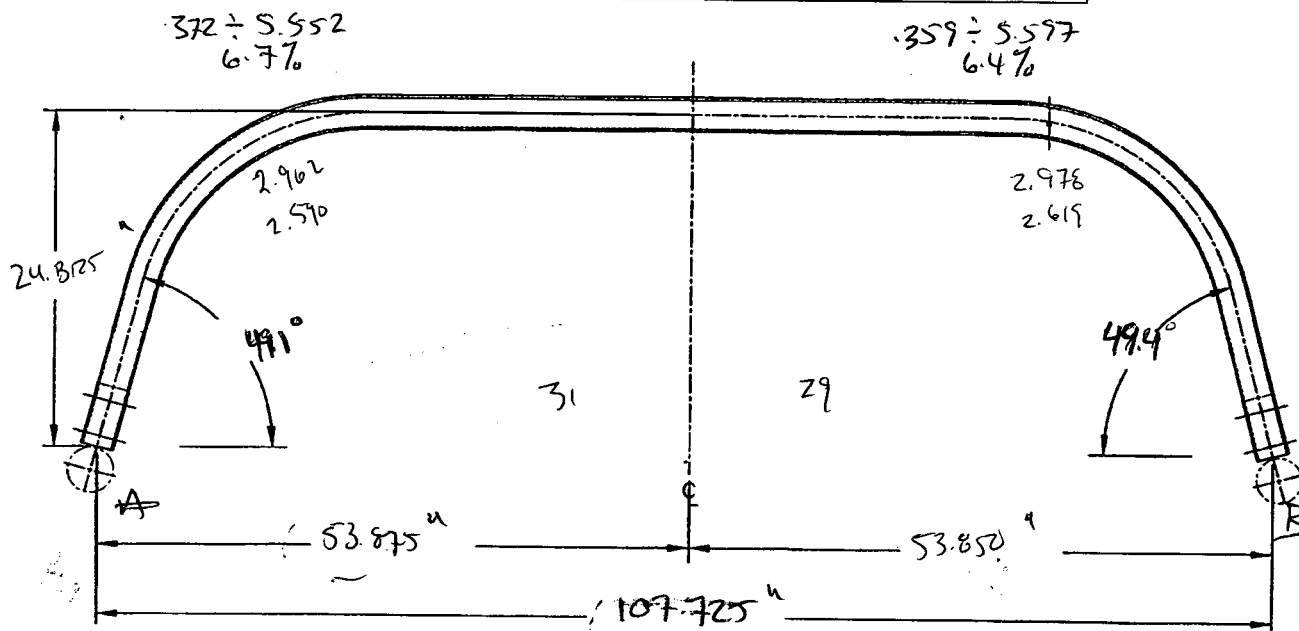
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	76351
Description: Crosstube High Aft (412)		Part Number:	D412-664-203
Inspection Dwg: D412-664-243		Rev: E	Page 1 of 1

Required Dimension	Min	Max
Height	24.24	24.50
1/2 Span	53.59	53.85
Angle	49	52
Total Span	107.18	107.70



Comments	
Sine A =	6.7% crushing @ 31 Passes
Sine B =	6.4% crushing @ 29 Passes
Acceptable 11.11.23 QSI/VR	

QC15 Inspection	8
Date	11/11/23

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	07.05.08	Dimensions updated per Dwg rev. D	KJ/JLM	
C	10.02.02	Dwg Rev updated	KJ	

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Item	Qty -243	Part Number	Description
1	X	D412-664-243	CROSSTUBE ASSEMBLY (412 HIGH AFT)
2	1	D6009-129	CROSSTUBE
3	2	D3595-063-570	RUBBER CUSHION
4	1	D2896-1	SUPPORT
5	2	D3189-1	CHAFING SHIELD
6	2	D2856-600-1009	ABRASION STRIP
7	4	MS21920-28	CLAMP
8	2	MS21920-30	CLAMP (OR MS21920-32)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- MATERIAL: MANUFACTURED FROM D6009-129
FINISHED LENGTH = 124.100±0.020 (BEFORE BENDING/TRIMMING)
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D412-664-243" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- WEIGHT: 47.0 lbs (PER IIN-D212-664)
- PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- INSTALL D2896-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- INSTALL MS21920-30 CLAMPS (OR -32) WITH D3595-063-570 RUBBER CUSHIONS TO SECURE THE D2896-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- INSTALL D2856-600-1009 ABRASION STRIPS WITH A 0.13 REF GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.
- EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- TORQUE CLAMPS 80 TO 100 IN.-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

WORK ORDER

NO. 76351 M.C.J.
11/11/05

② DEO ATTACHED

RELEASED
2009-10-29

E	REFORMAT/REVISE GENERAL NOTES; REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A6-3); ADD TOLERANCE (ZN B6-3, C4-3, C8-3 & C5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	09.09.30
D	REMOVE D2732-058, CHANGE TO D3595-063-570	PH	07.03.09
C	REMOVE D2856-600-1087, ADD D2732-058 & MAGNOBOND 6398, MS21920-32 WAS MS21920-30	MB	06.10.27
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	PH	01.10.17
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. E
MFG. APPR.	PH	D412-664-243	SHEET 1 OF 4
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	CROSSTUBE ASSEMBLY (412 HI AFT)	NTS
DATE	09.09.30	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

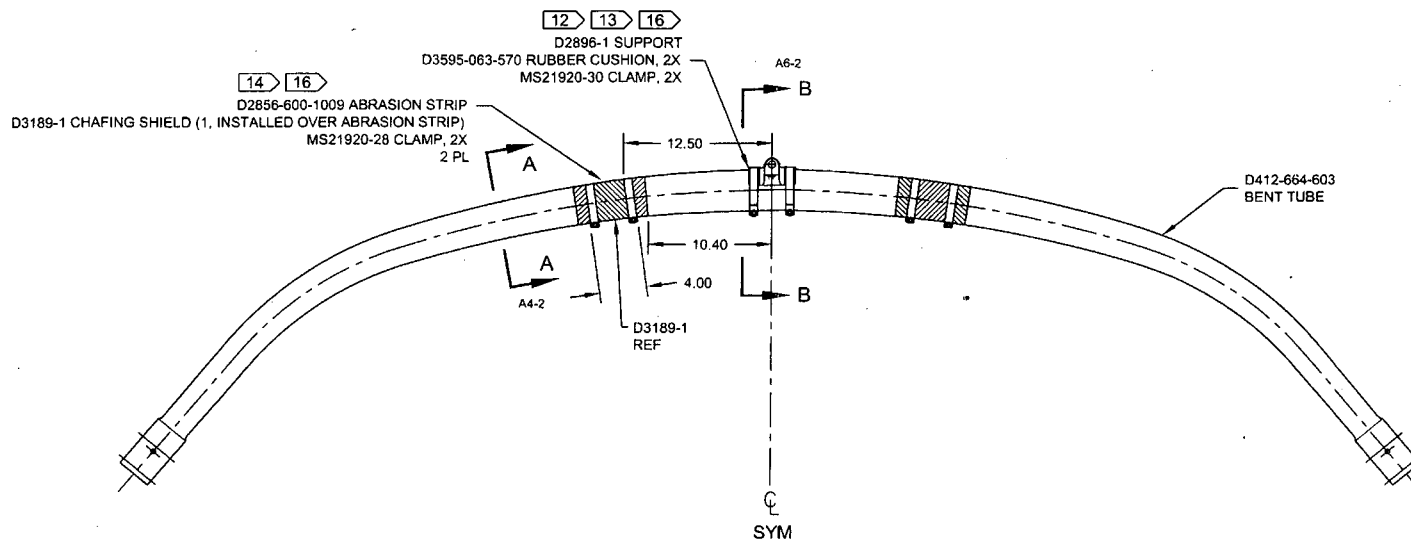
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

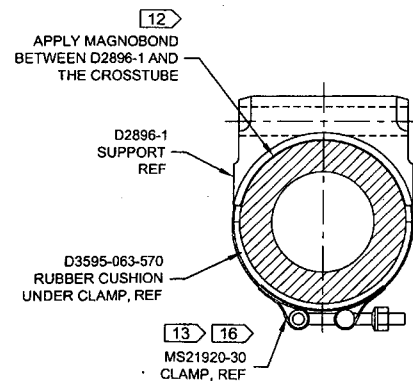
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

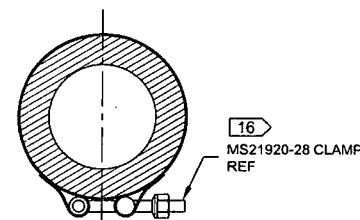
76351



D212-664-243
ASSEMBLY DETAIL E



SECTION B-B D4-2
SCALE 4X



SECTION A-A C6-2
SCALE 4X

2 DEO ATTACHED

RELEASED
2009-10-29
MK

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	92	DRAWING NO.	REV. E
MFG. APPR.	SS	D412-664-243	SHEET 2 OF 4
APPROVED	142	TITLE	SCALE
DE APPR.	14	CROSSTUBE ASSEMBLY (412 HI AFT)	NTS
DATE	09.09.30	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

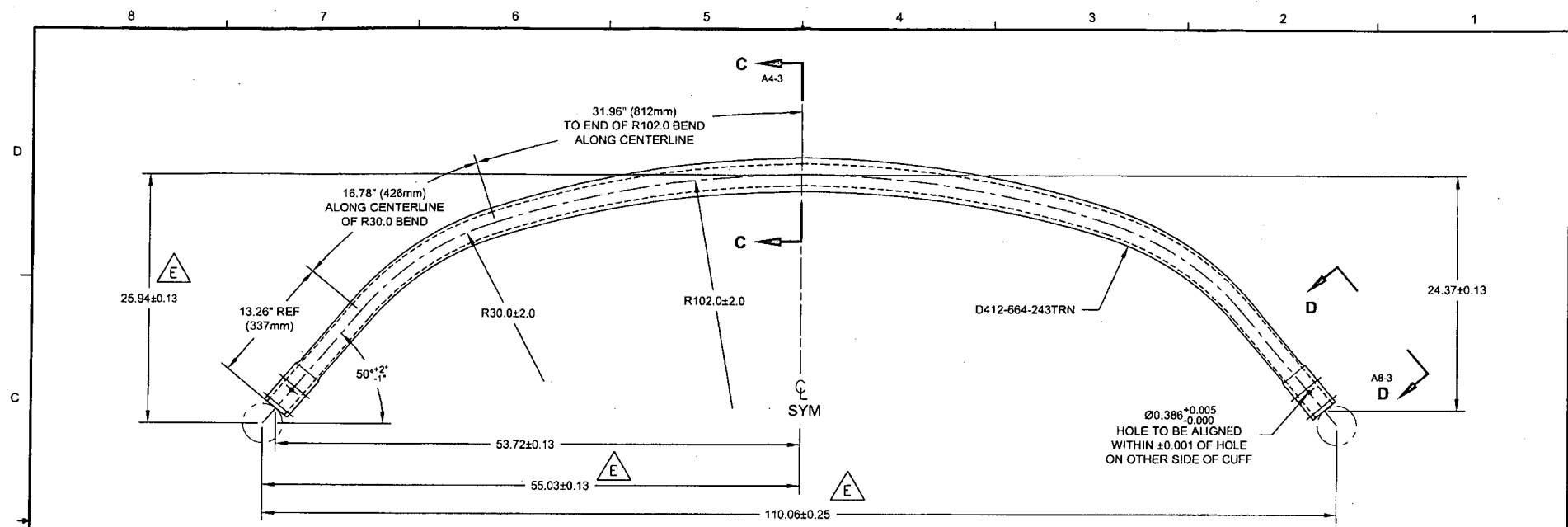
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

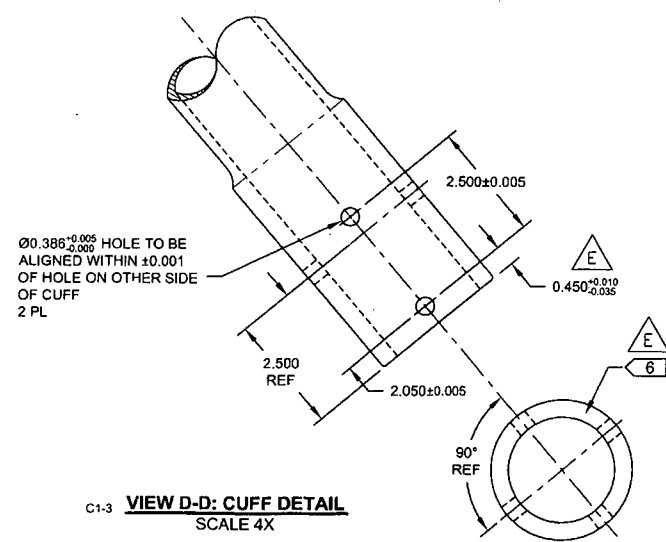
NOTE: Date & initial all entries

76351

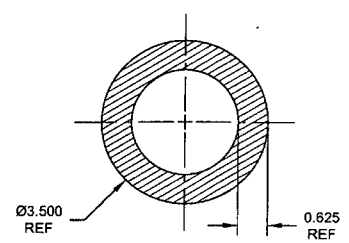


D412-664-603 10 E
BENDING AND DRILLING DETAIL

② DEO ATTACHED
RELEASED
 2009-10-29
 MP



C1-3 **VIEW D-D: CUFF DETAIL**
 SCALE 4X



SECTION C-C D5-3
 SCALE 4X

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	92	DRAWING NO.	REV. E
MFG. APPR.	10	D412-664-243	SHEET 3 OF 4
APPROVED	10	TITLE	SCALE
DE APPR.	10	CROSSTUBE ASSEMBLY (412 HI AFT)	NTS
DATE	09.09.30	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

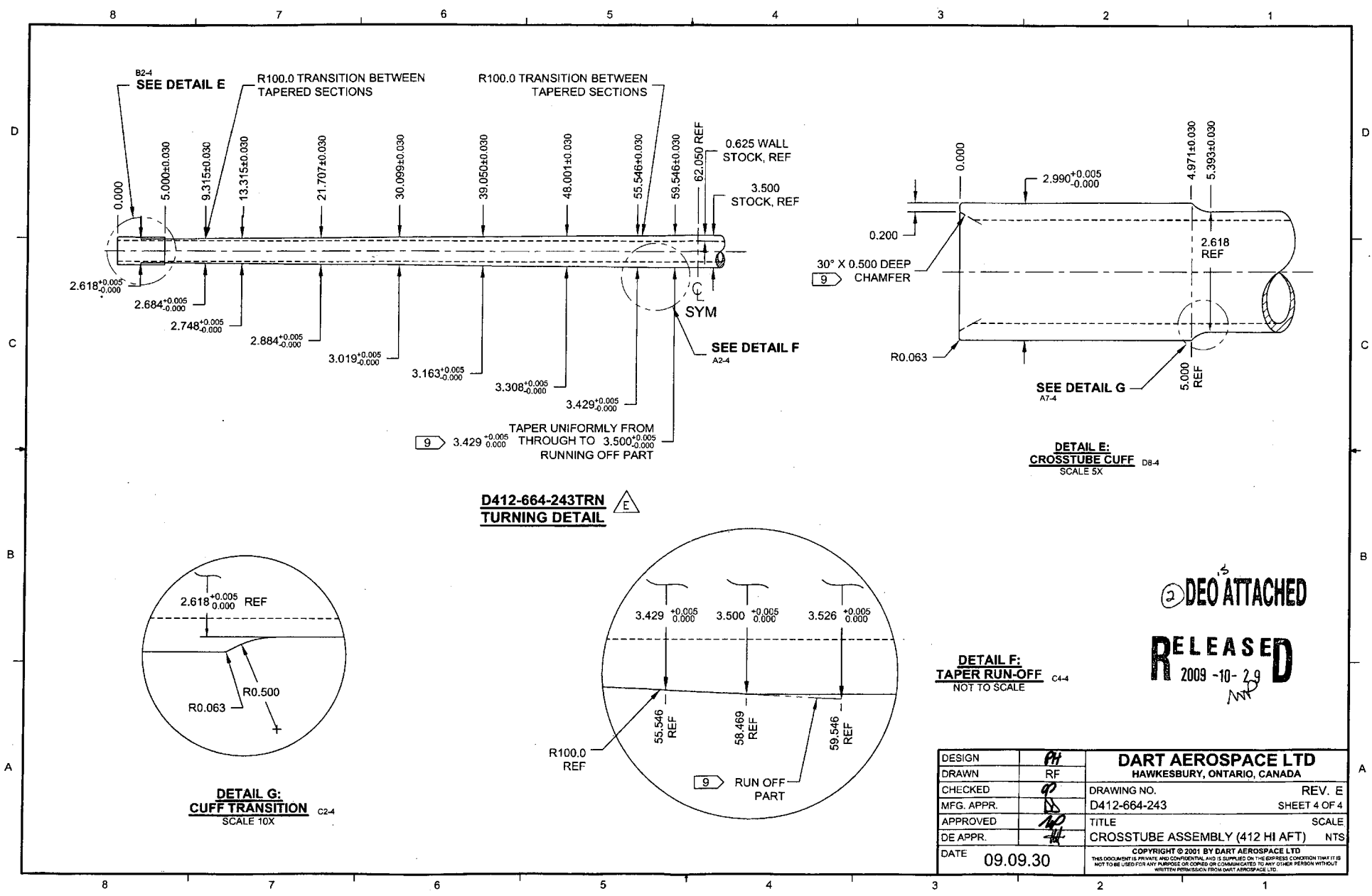
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

76357



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

76357

DRAWING NO. D412-664-243	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	REV. E	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D412-664-243-E-1	SHEET NO. SHEET 2 OF 2	SCALE NTS
DRAWN <i>[Signature]</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>		
DATE 11.03.31	DATE 11.03.31	DATE 11.03.31	DATE 11.03.31	DATE 11.03.31	DATE 11.03.31	

IS:

D3189-1 CHAFING SHIELD (1, INSTALLED OVER PROSEAL 890)
MS21920-28 CLAMP, 2X
2 PL

16 14

D412-664-603
BENT TUBE

2.00
1.00

WAS:

14 16

D2856-600-1009 ABRASION STRIP
D3189-1 CHAFING SHIELD (1, INSTALLED OVER ABRASION STRIP)
MS21920-28 CLAMP, 2X
2 PL

D3189-1
REF

**D412-664-243
ASSEMBLY DETAIL**

RELEASED
2011-04-07
[Signature]

MASK AREA PRIOR TO PAINTING AND
APPLY CLEAR COAT AFTER PAINTING

2

2.00

C
SYM

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

76357

DRAWING NO. D412-664-243	TITLE CROSSTUBE ASS'Y (412 HI AFT)	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D412-664-243-E-2	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 90	CHECKED SS	MFG. APPR. R	APPROVED MP		DE APPR. H		
DATE 11.09.07	DATE 11.09.19	DATE 11.09.19	DATE 11.09.19		DATE 11.09.19		

PURPOSE:

REPLACE MAGNOBOND WITH 3M DP460 SCOTCH-WELD EPOXY ADHESIVE

CHANGE:

IS:

Item	Qty -243	Part Number	Description
9	A/R	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD

WAS:

9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
---	-----	----------------	---

NOTE 12 & 16, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) INSTALL D2896-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. **PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.**

WAS:

- 12) INSTALL D2896-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2011-09-29
MP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action/Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

REFERENCE ONLY

5.0 PARTS LIST

5.1 HIGH GEAR CROSSTUBES

Item	-101	-201	-203	Part Number	Description
	X			D212-664-101	CROSSTUBE INSTALLATION, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
		X		D212-664-201	CROSSTUBE INSTALLATION, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH AFT
			X	D412-664-203	CROSSTUBE INSTALLATION, 412 HIGH AFT
1	1			D212-664-141	CROSSTUBE ASSEMBLY, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
2		1		D212-664-241	CROSSTUBE ASSEMBLY, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH AFT
3			1	D412-664-243	CROSSTUBE ASSEMBLY, 412 HIGH AFT
10	2			* D2893-1	SUPPORT
11	4			* D3595-063-450	RUBBER CUSHION
12	4			* MS21920-25	CLAMP (OR MS21042-26)
13	4			AN6-35A	BOLT
14	4			AN6-36A	BOLT
15	6			MS21042L6	NUT (OR MS21042-6)
16	18			AN960JD616	WASHER
20		2		* D2940-1	SUPPORT
21		4		* D3595-063-530	RUBBER CUSHION
22		4		* MS21920-28	CLAMP (OR MS21042-30)
23		4		AN6-40A	BOLT
24		2		AN6-41A	BOLT
25		6		MS21042L6	NUT (OR MS21042-6)
26		18		AN960JD616	WASHER
30			1	* D2896-1	SUPPORT
32			2	* D3595-063-570	RUBBER CUSHION
33			4	* MS21920-28	CLAMP
34			2	* MS21920-30	CLAMP (OR MS21042-32)
35			4	AN6-40A	BOLT
36			2	AN6-41A	BOLT
37			6	MS21042L6	NUT (OR MS21042-6)
38			18	AN960JD616	WASHER
39			2	* D3189-1	CHAFING SHIELD
50	1	1		D3428-1	PLACARD

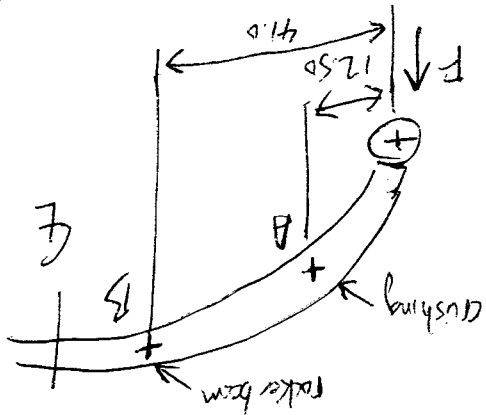
*REFERENCE ONLY. PARTS ARE INCLUDED IN D212-664-141/241 OR D412-664-243 ASSEMBLIES ABOVE
NOTE: KITS INCLUDE EXTRA HARDWARE FOR COMPATIBILITY WITH BOTH DART AND BELL/AAI
SKIDTUBES.

0412-464-205 BM 76350 & 76351

Weight case T8E: OD1 = 2.606 OD2 = 2.979
 Wall = 0.303 (inside band)
 0.290 (outside band)
 0.294 (side)
 0.250 (side)
 (Crushing = 6.70%

$I = 1.628$ (from AutoCAD)
 $C = 1.303$

Compared to point of contact of rocker beam.
 O.D. = 3.309 ID = 2.25
 $I = 4.627 \text{ m}^4 C = 1.654$



$$F = M/L/I$$

$$A_0 = F \times 12.5 \times 1.303 = 10.0 \times F$$

$$B = F \times 41.0 \times 1.654 = 14.65 \times F$$

$$4.627$$

$$M.S. = \frac{14.65}{10.0} - 1 = 0.46$$

MARGIN OF SAFETY STILL POSITIVE. TUBE WILL FAIL AT
 ROCKER BEAM BEFORE AREA OF CRUSHING. ACCEPTABLE

11.11.23

Chris Provencal

From: David Shepherd <dshepherd@dartaero.com>
Sent: Wednesday, November 23, 2011 12:53 AM
To: 'Chris Provencal'
Cc: 'Mike Petsche'
Subject: RE: NCR D412-664-203

Big sigh ... My recollection is that max crushing is 6%, so we are just over the limit ... Suggest you draw up the modified section and calculate M_c/I based on max landing gear loading of about 22,000 lb so we can see where we are at from a stress point of view. It's 412 aft, so we need to be real sure about this. I assume the tubes are concentric because if not, we might as well cut them up right now.

David

From: Chris Provencal [<mailto:cprovencal@dartaero.com>]
Sent: November-22-11 8:55 AM
To: David Shepherd
Cc: Mike Petsche
Subject: NCR D412-664-203

David,

We have two D412-664-203 xtubes. The max crushing is in the range of 6.4% to 6.7% for both tubes, on both sides. The area of heavy crushing is about 18" up from the cuff, near the end of the 30" rad. It transitions up to about 4% crushing a few inches above this, with the crushing being about 2% crushing in the top bend. The attached picture illustrates the location. Is this acceptable?

-Chris



RAPPORT D'INSPECTION PAR RESSUAGE

P - 11200

CLIENT	Dart Aerospace	DATE	November 25 th 2009	PAGE	1	DE	2	
ATTENTION	Mr. Mike Macelle	N° TRAVAIL	100-11-0767	HEURE	AM	<input checked="" type="checkbox"/>	PM	<input type="checkbox"/>
ADRESSE	1270 Aberdeen St Kitchener, Ontario K2A 1K7	N° CLIENT POWO	15546-2	SITE DE TRAVAIL	Dart Aerospace			
PROJET	Inspection Fluorescent en place	ACCEPTATION STD.	ASIA 1417/05 c3	DATE/REV.	2009			
ITEM(S) EXAMINÉ	3 x Connecteurs (Aluminium) 6 x Rappel (Aluminium)							

DESCRIPTION DES TRAVAUX	N° PROCÉDURE	LT-002	DATE/REV.	2009	N° TECHNIQUE	LT-002	DATE/REV.	2009
N° ITEMS	3 x Connecteurs and 6 x Rappel	MATÉRIEL	Aluminium	ÉPAISSEUR				
DESCRIPTION	Fluorescent inspection 100% on surface external on 3 x Connecteurs and 6 x Rappel							

DÉTAILS DES INSPECTIONS							
MÉTHODE :	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> LAVABLE À L'EAU	<input type="checkbox"/> MÉTHODE DISSOLVANT	<input type="checkbox"/> PRÉ-ÉMULSIONNANT		
MARQUE :	Dart Aerospace	LUM. NOIRE S/N	16460	<input checked="" type="checkbox"/> PUISS. > 1000 µW/cm²	<input type="checkbox"/> AMBIANT < 2 fc		
PÉNÉTRANT :	Zygon 21-67	TEMPS PÉNÉTRATION MIN.	10 MIN.	ÉQUIP. LUMIÈRE	<input type="checkbox"/> LAMP. POCHE	<input type="checkbox"/> LAMP. CULASSE	<input type="checkbox"/> PUISS. > 100 fc @ SURFACE
DISSOLVANT PÉNÉTRANT	520	TEMPS SÉCHAGE MIN.	> 10 MIN.	AUTRES	LAB-UC		
RÉVÉLATEUR	520	TEMPS PÉNÉTRATION MIN.	10 MIN.	MÈTRE LUM.	N/S		
TYPE RÉVÉLATEUR	<input checked="" type="checkbox"/> NON AQUEUX	<input type="checkbox"/> AQUEUX	<input type="checkbox"/> SEC	DATE CAL DUE			

SURFACE INSPECTÉE					
CONDITION SURFACE	<input type="checkbox"/> MEULÉE	<input type="checkbox"/> SOUDÉE	<input type="checkbox"/> MACHINÉE	<input type="checkbox"/> GRENAILLÉE	<input type="checkbox"/> MÉTAL PROPRE
TEMPÉRATURE SURFACE	<input type="checkbox"/> < -4°C/20°F	<input type="checkbox"/> -4°C/20°F DE 10°C/50°F	<input checked="" type="checkbox"/> 10°C/50°F DE 52°C/125°F	<input type="checkbox"/> > 52°C/125°F	

RÉSULTATS-	<input type="checkbox"/> MÉTRIQUE	<input type="checkbox"/> IMPÉRIAL			
3 x Connecteurs (see other ✓) that fit = item			No linear indication as per		
6 x Rappel (see other ✓) that fit = item			No linear indication as per		
			22242124		
			11.11.28		

Étendue des Services

L'entente selon laquelle le Groupe Acuren Inc. exécute les services ne concerne que les énoncés par écrit. En aucune circonstance ces services ne s'étendent au-delà de l'exécution des services demandés. Il est entendu que toutes les descriptions, les observations et les expressions d'opinions faites par Acuren reflètent les opinions ou les observations de l'entreprise fondées sur l'information et les hypothèses fournies par le propriétaire/opérateur, et elles ne constituent pas des déclarations ou des garanties ou ne peuvent être interprétées comme constituant. Le Groupe Acuren Inc. n'assume aucune des responsabilités du propriétaire/opérateur, et le propriétaire/opérateur conserve la responsabilité entière des décisions prises en matière d'ingénierie, de fabrication, de réparation et d'usage à partir de l'information ou des données fournies par Acuren en rapport avec les services décrits dans les présentes ne peuvent excéder le coût des services rendus.

Norme de Diligence

Dans l'exécution des services, le Groupe Acuren Inc. applique le degré de diligence, le soin et la compétence normalement exercés dans des circonstances semblables par d'autres fournisseurs de ce type de services opérant dans la même localité ou dans une localité similaire. Aucune autre garantie, implicite ou explicite, n'est faite ou voulue par le Groupe Acuren Inc.

SIGNATURES

REPRÉSENTANT	John T. Tiley	FTJ#	
TECHNICIEN (SIGNATURE):		RAPPORT RÉVISÉ PAR:	
NOM (MOULÉ):	Pierre-Luc Dufour	NOM	INITIALES
ONGC NIVEAU	2	SNT NIVEAU	2
ONGC N° REG.	12265	ONGC N° REG.	



RAPPORT D'ESSAI NON DESTRUCTIF

(SUITE)

RAPPORT #

R-11200

PAGE 2 DE 2

CLIENT 1st Aerospace DATE December 25th 2011 HEURE ☒ AM ☐ PM
ATTENTION Mme Linda Lacelle NO. TRAVAIL ACUREN 188-11-0767
RÉSULTATS (☐ METRIQUE ☐ IMPÉRIAL)

Aluminium cross tubes:

WORK ORDER ID	Item ID
75804 (cross tube low standard AFT)	D 212-664-207
" " 75803 " " "	" " "
" " 76351 (cross tube AFT)	D 412-664-203
" " 76350 " " "	" " "
" " 75802 (cross tube low standard AFT)	D 212-664-207
" " 76370 " " "	" " "
" " 76369 " " "	" " "

Aluminium Rappel:

7A(12) WORK ORDER ID 76101 (Rappel) Item ID D3011-1

Étendue des Services

L'entente selon laquelle le Groupe Acuren Inc. exécute les services ne concerne que les énoncés par écrit. En aucune circonstance ces services ne s'étendent au-delà de l'exécution des services demandés. Il est entendu que toutes les descriptions, les observations et les expressions d'opinions faites par Acuren reflètent les opinions ou les observations de l'entreprise fondées sur l'information et les hypothèses fournies par le propriétaire/opérateur, et elles ne constituent pas des déclarations ou des garanties ou ne peuvent être interprétées comme constituant. Le Groupe Acuren Inc. n'assume aucune des responsabilités du propriétaire/opérateur, et le propriétaire/opérateur conserve la responsabilité entière des décisions prises en matière d'ingénierie, de fabrication, de réparation et d'usage à partir de l'information ou des données fournies par Acuren en rapport avec les services décrits dans les présentes ne peuvent excéder le coût des services rendus.

Norme de Diligence

Dans l'exécution des services, le Groupe Acuren Inc. applique le degré de diligence, le soin et la compétence normalement exercés dans des circonstances semblables par d'autres fournisseurs de ce type de services opérant dans la même localité ou dans une localité similaire. Aucune autre garantie, implicite ou explicite, n'est faite ou voulue par le Groupe Acuren Inc.

SIGNATURES

REPRÉSENTANT À LA CLIENTÈLE	MOULÉE	SIGNATURE	FTJ #:
<u>Sam Tillet</u>		<u>[Signature]</u>	
TECHNICIEN (SIGNATURE)			
NAME (MOULÉE):			
<u>PIERRE LUC DUBOIS</u>			
1 ^{er} TECHNICIEN		2 ^e TECHNICIEN	
NIVEAU CGSB <u>2</u> NIVEAU SNT <u>2</u>		NIVEAU CGSB <u> </u> NIVEAU SNT <u> </u>	
No. ENREG. CGSB <u>12205</u>		No. ENREG. CGSB <u> </u>	

H-3050

BLANCHE - COPIE DU CLIENT

JAUNE - COPIE DU BUREAU

ROSE - COPIE DU TECHNICIEN

OR - COPIE DU BUREAU

Location/Lot Activity

Thursday, March 29, 2012 12:36:44 PM

Page 1 of 3

Criteria : All Items All Locations Lot: 71502 All Transaction Types All Dates Report on Locations & Lots

Transaction Type	Item ID/ Item Name	Warehouse Location ID	Reason	Employee ID Location Code	Loc Trans Date	LocQtyPrior/ Location Qty	Lot Number	LotQtyPrior/ Lot Qty	Shelf Life Date Lot Code	Extended Cost
Account Value Change	D2896-1 / Support	Main Warehouse		FAUT01		20.0000		20.0000		
		LG			10/19/2011	-20.0000	71502	-20.0000		(\$6,397.93)
		Main Warehouse		FAUT01		20.0000		20.0000		
		LG			10/19/2011	20.0000	71502	20.0000		\$6,397.93
								0.0000		\$0.00
Inv Adjustment	D2896-1 / Support	Main Warehouse	Found	FAUT01		21.0000		0.0000		
		LG053			3/7/2012	1.0000	71502	1.0000		\$319.90
		Main Warehouse	Found	FAUT01		21.0000		0.0000		
		LG053			3/7/2012	1.0000	71502	1.0000		\$319.90
		Main Warehouse	B/N correction	GOLD01		21.0000		0.0000		
		LG053			3/23/2012	1.0000	71502	1.0000		\$319.90
		Main Warehouse	B/N correction	GOLD01		21.0000		0.0000		
		LG053			3/27/2012	1.0000	71502	1.0000		\$319.90
								4.0000		\$1,279.59
Issue	D2896-1 / Support	Main Warehouse	73691	QUIR01		20.0000		20.0000		
		LG			10/19/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	73690	QUIR01		19.0000		19.0000		
		LG			10/19/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	75417	QUIR01		18.0000		18.0000		
		LG			11/9/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	75416	QUIR01		17.0000		17.0000		
		LG			11/9/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	74376	FAUT01		16.0000		16.0000		
		LG			11/21/2011	-1.0000	71502	-1.0000		(\$319.90)

Transaction Type	Item ID/ Item Name	Warehouse Location ID	Reason	Employee ID Location Code	Loc Trans Date	LocQtyPrior/ Location Qty	Lot Number	LotQtyPrior/ Lot Qty	Shelf Life Date Lot Code	Extended Cost
Issue	D2896-1 / Support	Main Warehouse	74377 -203	FAUT01		15.0000		15.0000		
		LG			11/21/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	76351 -203	DESJ02		35.0000		14.0000		
		LG053			12/6/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	76350 -203	DESJ02		34.0000		13.0000		
		LG053			12/6/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77108 -203	DESJ02		33.0000		12.0000		
		LG053			12/9/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77273 -203	LAVO01		32.0000		11.0000		
		LG053			12/9/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77109 -203	DESJ02		31.0000		10.0000		
		LG053			12/13/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77433	QUIR01		30.0000		9.0000		
		LG053			12/19/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77434	QUIR01		29.0000		8.0000		
		LG053			12/20/2011	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77748	FAUT01		28.0000		7.0000		
		LG053			1/6/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77533	FAUT01		27.0000		6.0000		
		LG053			1/6/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	77534	FAUT01		26.0000		5.0000		
		LG053			1/6/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	78576	FAUT01		25.0000		4.0000		
		LG053			2/22/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse	78574	FAUT01		24.0000		3.0000		
		LG053			2/22/2012	-1.0000	71502	-1.0000		(\$319.90)

Issued
 71502
 11/10/13
 11/10/19
 74465

Transaction Type	Item ID/ Item Name	Warehouse Location ID	Reason	Employee ID Location Code	Loc Trans Date	LocQtyPrior/ Location Qty	Lot Number	LotQtyPrior/ Lot Qty	Shelf Life Date Lot Code	Extended Cost
Issue	D2896-1 / Support	Main Warehouse LG053	78575	FAUT01		23.0000		2.0000		
					2/22/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse LG053	78573	GOLD01		22.0000		1.0000		
					2/24/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse LG053	80135	FAUT01		22.0000		1.0000		
					3/7/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse LG053	80134	FAUT01		22.0000		1.0000		
					3/7/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse LG053	80585	GOLD01		22.0000		1.0000		
					3/23/2012	-1.0000	71502	-1.0000		(\$319.90)
		Main Warehouse LG053	80584	GOLD01		22.0000		1.0000		
					3/27/2012	-1.0000	71502	-1.0000		(\$319.90)
									-24.0000	(\$7,677.51)
Loc Transfer	D2896-1 / Support	Main Warehouse LG053		GOLD01		0.0000		0.0000		
					11/30/2011	14.0000	71502	14.0000		\$4,478.55
		Main Warehouse LG		GOLD01		14.0000		14.0000		
					11/30/2011	-14.0000	71502	-14.0000		(\$4,478.55)
									0.0000	\$0.00
WIP Receipt	D2896-1 / Support	Main Warehouse LG	71502	GOLD01		0.0000		0.0000		
					10/3/2011	20.0000	71502	20.0000		\$6,397.93
									20.0000	\$6,397.93